



## 19BF-085

## STAFF REPORT

### **ADDRESS:**

1923 Boddeker Rd, R.A. Apffel/East Beach Park

### **LEGAL DESCRIPTION:**

M Menard Survey, Tr 60 (221.679 acres), Tr 62 (230.84 acres), Tr 63 (45.000 acres)

### **APPLICANT/REPRESENTATIVE:**

Galveston Park Board of Trustees, Reuben Trevino

### **PROPERTY OWNER:**

City of Galveston

### **REQUEST:**

Beachfront Construction Certificate/Dune Protection Permit for Annual Beach Maintenance, including the redistribution of stockpiled sand and seaweed.

### **APPLICABLE LAND USE REGULATIONS:**

Chapter 29, Article 2, Beach Access Dune Protection and Beachfront Construction Regulation.

### **STAFF RECOMMENDATION:**

Approval with Conditions

### **EXHIBITS:**

- A – Aerial Map
- B – Narrative and Site Plan
- C – GLO Comment Letter

### **STAFF:**

Dustin Henry, AICP  
Coastal Resources Manager  
DHenry@GalvestonTX.gov



Note: This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

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### **Executive Summary:**

The City of Galveston's Dune Protection and Beach Access Plan designates the Planning Commission as the authority to review and consider for approval of applications for a Beachfront Construction Certificate/Dune Protection Permit when the proposed construction activities will occur in areas within or seaward of the Dune Conservation Area or up to 50-foot landward of the Dune Protection Line. The Dune Protection Line is defined as the area within 25-foot landward of the north toe of the critical dune area, or for those beach areas where no dunes exist west of the terminus of the Seawall, within 200-foot landward of the line of vegetation.

The applicant is requesting approval to conduct annual beach maintenance activities on approximately 3,885 linear feet of beach area at the area commonly known as R.A. Apffel/East Beach Park. The proposed beach maintenance area is seaward of the Dune Protection Line and within the Planning Commission review area.

The applicant proposes to maintain the beach on a daily, as needed basis, with ongoing maintenance extending into the dry sand parking area within the park, adjacent to and east and west of the Pavilion. Sand and seaweed accumulated in stockpile locations will be periodically redistributed into the parking areas to mitigate ponding water and soft sand areas in order to improve conditions at the beach access parking areas.

The applicant's narrative (Attachment "B") describes in more detail the beach maintenance activities that are proposed and the types of equipment that will be utilized. Included with the narrative is a site plan showing the project area and the locations proposed as temporary placement areas for seaweed.

There are dunes along the bollard line that delineates the parking areas from the pedestrian-only beaches. These dunes were constructed in 2014 of sand and stockpiled seaweed as a scientific demonstration project. The applicant is proposing to redistribute these materials into the park's public beach access parking areas. Dune vegetation would be replanted on site and would be made available to local non-profit organizations that might be interested in utilizing the vegetation for dune restoration projects in the future. Sand and seaweed that is accumulated in stockpile locations from ongoing beach maintenance activities will also be redistributed into the public beach access parking areas.

**Site and Surrounding Area:**

The subject site totals approximately 3,885 linear feet of beach at the area commonly known as R.A. Apfel/East Beach Park. Boddeker Drive and the East End Lagoon are located to the North, the Gulf of Mexico to the South, the Galveston Ship Channel to the East, and the Beachtown subdivision to the West.

According to the U.T. Bureau of Economic Geology, this is an accreting beach area. Between the 1950s and 2012, this beach area experienced an average shoreline change rate ranging from +8.2 to +18.3 feet per year.

**Analysis:**

In accordance with Chapter 29: Planning – Beach Access Dune Protection & Beach Front Construction, before issuing a permit, the Planning Commission must find that the proposed construction conforms with the following Beachfront Construction Certificate and Dune Protection Permit standards:

**(1) The proposed activity is not a prohibited activity as defined in these standards.**

The request conforms to the City of Galveston's Dune Protection and Beach Access Plan, and Erosion Response Plan. The narrative and site plan, (Attachment "B"), are submitted with this request.

Staff has reviewed the application materials and have identified no prohibited activities seaward of the Dune Protection Line as defined by §(j) of the Plan.

**(2) The proposed activity will not materially weaken dunes or materially damage dune vegetation seaward of the Dune Protection Line based on substantive findings as defined in "Technical Standards" of these standards.**

According to Section 29-2(k) Technical Standards, the Planning Commission shall not approve an application for construction if it is determined that it will result in a material weakening and material damage of dune vegetation. The following standards are to be used to make this determination:

- a. The activity shall not result in the potential for increased flood damage to the proposed construction site or adjacent property;
- b. The activity shall not result in runoff or drainage patterns that aggravate erosion on or off the site;
- c. The activity shall not result in significant changes to dune hydrology;
- d. The activity shall not result in adverse impacts on dune complexes or dune vegetation;
- e. The activity shall not significantly increase the potential for washovers or blowouts to occur; or
- f. The Commission shall not issue a Beachfront Construction Certificate and Dune Protection Permit authorizing construction unless the construction and property design is designed to minimize impacts on natural hydrology. Such projects shall not cause erosion to adjacent properties, critical dune areas, or the public beach.

The Technical Standards also state that the Planning Commission should take into consideration all comments from the Texas General Land Office when deciding whether to grant a Beachfront Construction Certificate/Dune Protection Permit. Comments from the Texas General Land Office for this request are found in Attachment "C" and recommended as specific conditions for this request, should the Planning Commission approve this request.

Staff finds that the proposed beach maintenance activities will not materially weaken dunes or materially damage dune vegetation, as defined by these Technical Standards.

**(3) There are no practicable alternatives to the proposed activity that is located seaward of the Dune Protection Line and adverse effects cannot be avoided as provided in the Mitigation sequence as outlined in these Standards.**

The City's Dune Protection and Beach Access Plan states that the Planning Commission shall utilize the Mitigation Sequence in determining whether to issue a permit for an activity located seaward of the Dune Protection Line, after the determination that no material weakening of dunes or material damages to dunes will occur within critical dune areas or seaward of the Dune Protection Line. The mitigation sequence is as follows:

- 1) **Avoid** the impact altogether by not taking a certain action or parts of an action;
- 2) **Minimize** impacts by limiting the degree or magnitude of the action and its implementation;
- 3) **Rectify** the impact by repairing, rehabilitating, or restoring the affected environment; and,
- 4) **Compensate** for the impact by replacing resources lost or damaged.

Dunes along the bollard line that delineates the public beach parking areas from the pedestrian-only areas of the beach were constructed in 2014 as part of a Coastal Erosion Planning and Response Act (CEPRA), Project #1581: Innovative Technology Seaweed Prototype Dunes (<https://glo.texas.gov/coastal-grants/documents/grant-project/1581-final-rpt.pdf>). The applicant is proposing to redistribute the materials used to construct these dunes into the park's public beach access parking areas.

This project was a demonstration project undertaken by a local university in partnership with the applicant. As a scientific research project, 31 TAC §15.7(f) allows the City to exempt it from the requirements of the Dune Protection Standards, 31 TAC §15.4(c).

The applicant has proposed to replant the dune vegetation on site and make it available for use in other dune restoration projects by local non-profit organizations. Staff would recommend the applicant consider replanting the dune vegetation in areas within the park where the possible re-establishment of dunes would not result in ponding water in parking areas, would not be buried by stockpiled beach maintenance materials, and would be less likely to be disturbed by or interfere with pedestrian access to the beach from these parking areas.

Staff also recommends that seaweed stockpiled in the future be periodically redistributed frequently enough that dunes and dune vegetation do not naturally re-establish in the designated stockpile areas.

**(4) The applicant's mitigation plan, for an activity seaward of the Dune Protection Line, if required, will adequately minimize, mitigate, and/or compensate for any unavoidable adverse effects.**

There are no unavoidable adverse effects to dunes or dune vegetation seaward of the Dune Protection Line, beyond what activities are proposed to the dunes constructed as a scientific research project, which are exempted from the requirements of the Dune Protection Standards, 31 TAC §15.4(c).

**(5) The proposed activity complies with any applicable requirements of: Requirements for Beachfront Construction Certificate and Dune Protection Permits and Management of the Public Beach of this Section; and**

The application conforms to the City of Galveston's requirements for a Beachfront Construction Certificate and Dune Protection Permit, and the City's requirements for the management of the public beach.

**(6) The structure is located as far landward as practicable.**

This standard does not apply. The applicant is proposing annual beach maintenance activities.

**Staff Recommendation:**

Staff recommends approval of 19BF-085 with the following conditions:

*Specific Conditions to Case 19BF-085:*

1. The applicant shall replant the dune vegetation in areas within the park where the possible re-establishment of dunes would not result in ponding water in parking areas, would not be buried by stockpiled beach maintenance materials, and would be less likely to be disturbed by or interfere with pedestrian access to the beach from these parking areas;
2. The seaweed stockpiled in the future shall be periodically redistributed frequently enough that dunes and dune vegetation do not naturally re-establish in the designated stockpile areas;
3. The applicant shall adhere to all comments from the Texas General Land Office (GLO) included in Attachment "C":
  - a. The City may allow a scientific research project to be exempt from the requirements of 31 Texas Administrative Code § 15.4(c) and 15.7(e) provided that the project is conducted by an academic institution or a state, federal, or local government. It is the GLO's understanding that the City intends to exempt the scientific research project from the requirements of 31 Texas Administrative Code § 15.7(e). Should the City not exempt the scientific research project from these requirements, the restored dunes and dune vegetation shall be protected under the same restrictions as natural dunes and the Park Board must submit a comprehensive mitigation plan that demonstrates avoidance, minimization, mitigation, and/or compensation for the proposed adverse impacts to dunes;
  - b. The Park Board may not adversely impact any dunes that naturally form in Apffel Park as a result of replanting dune vegetation and natural sand accumulation without first obtaining the appropriate beachfront construction certificate and dune protection permit from the City to do so;
  - c. If a non-profit organization proposes to harvest and plant the dune vegetation from Apffel Park, a new or amended beachfront construction certificate and dune protection permit must be obtained for the dune restoration project prior to transplanting the vegetation;
  - d. The proposed beach maintenance activities must not restrict or interfere with public use of the beach;
  - e. The applicant proposes to create and maintain a stockpile of sand or a combination of sand and seaweed at Apffel Park. The applicant may not utilize sand scraped from the beach to create the proposed stockpiles. The applicant's activities must not result in significant redistribution of sand or significantly alter the beach profile, materially weaken dunes or dune vegetation, or reduce the

protective function of dunes;

- f. The proposed stockpiles of beach maintenance materials may not bury any replanted dune vegetation;
- g. The applicant proposes to redistribute stockpiled material from beach maintenance activities to the parking area in R.A. Apffel East Beach Park every 18 to 24 months. All sand and seaweed collected as a part of maintenance activities during periods of heavy seaweed influx must remain in stockpiles until it can be used for dune enhancement projects within critical dune areas;
- h. The applicant should only grade and/or rake beaches to level sand drifts and fill holes and washouts if the activity is necessary to maintain access for emergency vehicles or ensure public access to and use of the beach. The Park Board must ensure the activity does not create additional holes and that any redistributed sand remains within the site and seaward of the line of vegetation;
- i. The applicant must minimize the raking of the beach to only when the influx of materials is heavy enough to impact the public's ability to use the public beach easement. The GLO encourages the removal of litter and other debris by handpicking or raking by hand and strongly discourages the use of machines;
- j. The applicant shall avoid impacts to any dunes or dune vegetation. The applicant may not rake over dune vegetation or operate machinery on dunes. The GLO recommends thinly spreading collected materials in low areas, blowouts and breaches within the primary dune complex. If maintenance materials cannot be placed in the primary dune complex or its placement would adversely affect dunes and dune vegetation, the collected maintenance materials may be placed immediately adjacent to the line of vegetation provided its placement would not adversely affect public access;
- k. The rake height should be adjusted to allow the rake teeth to draw man-made and naturally occurring debris into piles or windrows, while at the same time minimizing the amount of sand moved from the beach;
- l. The applicant must return any sand moved or redistributed due to beach maintenance activities to the area between the line of vegetation and mean high tide;
- m. The applicant's beach maintenance activities must not result in the potential for increased flood damage to the site or adjacent property; result in runoff or drainage patterns that aggravate erosion; cause significant changes to dune hydrology; adversely affect dune complexes or dune vegetation; or significantly increase the potential for washovers or blowouts to occur;
- n. The beach maintenance activities must minimize impacts on natural hydrology and not cause erosion of adjacent properties, critical dune areas, or the public beach;

*Additionally, the Texas General Land Office (GLO) provided the following recommendations, included in Attachment "C":*

- o. In addition to the requirements outlined above, the applicant must conduct activities in accordance with other local, state, or federal regulations and permits, such as permits issued by the U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers, and with the Galveston Park Board of Trustees Recommended Best Practices for Beach Maintenance.

The beach maintenance activities appear to be proposed in an area where sea turtle nesting habitat

is located. The GLO recommends that the applicant take measures to avoid violating the Endangered Species Act, such as utilizing a sea turtle monitor with appropriate training and notifying a nest patrol and detection program prior to cleaning the beach.

*Standard Conditions:*

4. Work approved under this permit shall be completed within one (1) year from the date this permit is issued. If work is not completed in this time period, it will be necessary for the applicant to reapply for a Beachfront Construction Certificate/Dune Protection Permit, unless an extension of the period, prior to the expiration, has been submitted to the Texas General Land Office for review and approved by the City;
5. Any alterations to the project, as approved, shall return to the Planning Commission and/or Texas General Land Office for additional review and approval;
6. The applicant shall coordinate any/all dune enhancement plans with the Development Services Department; and,
7. The applicant must adhere to all aspects of Section 29: Planning-Beach Access Dune Protection & Beachfront Construction.

**ERP PRACTICABLE DEFINITION**

Practicable means available and capable of being done after taking into consideration existing building practices, siting alternatives, and the footprint of the structure in relation to the area of the building portion of the lot, and considering the overall development plan for the property.

**TEXAS ADMINISTRATIVE CODE PRACTICABLE DEFINITION 15.2(57)**

In determining what is practicable, local governments shall consider the effectiveness, scientific feasibility, and commercial availability of the technology or technique. Local governments shall also consider the cost of the technology or technique.

Respectfully Submitted,



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Dustin Henry, AICP  
Coastal Resources Manager

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March 13, 2020

Date



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Catherine Gorman, AICP  
Assistant Planning Director / HPO

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March 13, 2020

Date



**Legend**

- ECZ
- 25' Offset NTD
- NTD
- STD
- Approx. LOV
- MHW
- MLW
- Parcels

0 500 1,000 2,000 Feet

**R.A. Apffel Park - Annual Beach Maintenance (Case #19BF-085)**

Map prepared by the City of Galveston Development Services Department (VGreb) - 12/2/2019  
Data Sources: Topographic Data from Atkins July 2017 wading depth surveys, 2018 Aerial Imagery and Parcel Data from Galveston CAD

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**Park Board of Trustees of the City of Galveston  
Beach Maintenance Permit Application Narrative  
2020 R.A. Apffel East Beach Park  
1923 Boeddeker Drive Galveston, Texas**

The Park Board of Trustees of the City of Galveston is seeking a Beach Maintenance permit from the City of Galveston for the 2020 season to perform routine beach maintenance activities at R. A. Apffel East Beach Park. These activities would include both normal day to day maintenance activities and conditions of extraordinary circumstances as authorized by the Park Board's U.S. Army Corp of Engineers (USACE) permit #SWG-2014-00448 Beach Cleaning and Seaweed Relocation permit.

It is important to note that at the time of this application the City of Galveston Park Board of Trustees is the only entity on Galveston Island to obtain a U.S. Army Corps of Engineers permit (#SWG-2014-00448) for beach cleaning and seaweed relocation; and all of its ongoing maintenance activities must and will be in compliance with the USACE federal permit guidelines.

Additionally, Park Board committees and staff have coordinated to develop a set of Best Practice recommendations for beach maintenance that has been provided to the City of Galveston for its use and information to facilitate deliberations in the City's permitting and review process. The Park Board has also sought to specifically reduce the impact of beach cleaning equipment. Such equipment, while less impactful, is very often much slower to operate and more demanding of staff time resulting in much higher labor costs. Previously submitted is a copy of the Park Board approved "Best Practices" originally submitted to the City.

It is anticipated the area will be maintained on a as needed daily basis due to its designation as a beach access point. This location is very popular with a wide array of beach users; and the general public has the expectation the Park area will be clean and well maintained. This daily and ongoing maintenance extends to the dry sand parking area within the park, adjacent to the Pavilion and extending to the east and west. The parking area can at times become impassable due to ponding water or extremely soft sand. As sand and seaweed is accumulated in the USACE permit #SWG-2014-00448 stockpile locations at approximately every 18 to 24 months will be redistributed into the parking area to help offset these issues. The primary equipment to be used to maintain the beach is a Barber Surf Rake style of equipment. This equipment generally picks up the material and debris from atop the sand rather than digging down with a mechanical rake and drawing it through the beach in a "tilling" fashion. Other equipment as authorized by USACE #SWG-2014-00448 will also be utilized on the beach including garbage trucks, pick-up trucks, loaders, augers (for bollards) and other small equipment. Equipment used within the designated vehicle parking areas would; among other equipment, include front-end loaders and maintainers for sand spreading and leveling. This equipment would be used within the designated parking areas and would not be used in areas with less than a 4ft elevation. In compliance with the USACE permit seaweed will be stockpiled in accordance with the specified locations within USACE permit #SWG-2014-00448. The Park Board has maintenance staff that removes trash and debris from the beach daily and includes handpicking litter and trash from the beach and servicing the trash barrels.

The proposed location of where the material will be subsequently redistributed to mitigate against hazardous ponding water and potentially soft sand is delineated within the outlined blue area.

We are proposing to redistribute the existing materials (sand) located in the area labeled "vegetated seaweed mounds." Because these are dunes that were restored CEPR funding, they are subject to protection. The City has stated that it is willing to exempt the Park Board from the requirements of Texas Administrative Code Sections 15.4(c) and 15.7(e) as a scientific research project. In order to conserve vegetation, the Park Board plans to reach out to local NGOs and invite them to harvest the dune vegetation to utilize in dune restoration projects.

Park Board beach maintenance staff are required to attend species training provided through Texas A&M Galveston and are equipped with the necessary contact phone numbers and information to facilitate any notification or reporting if that situation occurs. Previously, Park Board staff has reported marine species landings and has successfully coordinated with resource agencies. It is understood the Park Board's beach maintenance activities will not adversely affect the public, public beach access way, or exacerbate erosion. Included within the USACE permit are engineered

drawings providing the specific location and placement of the temporary seaweed stockpile locations seaward of the parking area. Park Board activities will not adversely weaken dunes or dune vegetation or reduce the protective functions of the dunes. The Park Board's activity will not remove sand from the beach and the activity will not significantly alter the beach profile or the line of vegetation.

The Park Board understands all documents submitted with this application are subject to the Open Records Act / Texas Public Information Act; and, receipt of an application does not constitute application completeness and that staff will review the application and return incomplete applications; and that application fees are non-refundable once the application has been submitted. The Texas General Land Office must review this application prior to any authorization to proceed with the Beach Maintenance Sworn Affidavit. It is also understood the Park Board will conform to any comments received from the General Land Office regarding this application.

The R.A. Apffel Park area is open as an on-beach parking area with direct pedestrian access to the beach from the parking area, free parking areas are also located adjacent to both park entrances. Pedestrian ingress and egress are also readily available along the beachfront area with pedestrian access available from the east side of the South Jetty to the beach area west of 89<sup>th</sup> street.

The R.A. Apffel Park beach maintenance narrative explained the stockpiled material would be relocated to the parking areas to help mitigate ponding water and extremely soft sand. Both of those factors can pose a hazard to the general public. As a beach access point and public park, park visitors have the expectation of a safe and secure environment. Park Board staff will take the as needed necessary steps to protect the health and safety of the general public. The Park Board proposes to stack stockpiled seaweed material (sand) within the designated locations as authorized by USACE permit #SWG-2014-00448. The stockpiling will not result in a hinderance to public access.

**Park Board of Trustees of the City of Galveston  
Beach Maintenance Permit Application Map  
2020 R.A. Apffel East Beach Park**



This is a current, accurate map submitted to the General Land Office (GLO) for a beachfront construction certificate and dune protection permit to undertake beach maintenance activities. It labels the extent and location of the proposed beach maintenance at R.A. Apffel (East Beach) Park.



 <p>Elements shown on this plan set are schematic for permitting purposes only. Not for construction.</p> <p>Datum: NAD 83                  Projection: State Plane                  Zone: Texas South Central                  Units: Feet</p>		<ul style="list-style-type: none"> <li> Typical Jurisdictional Limit (3' Contour)</li> <li> Predetermined Temporary Placement Area (seaweed)</li> <li> Approximate Line of Vegetation</li> <li> High Tide Line</li> <li> Low Tide Line</li> <li> Excluded from Permit Project Area</li> <li> Proposed Project Area</li> </ul>	<p>Notes:</p> <ol style="list-style-type: none"> <li>1. Aerial imagery, shown hereon, is a graphical representation and may not reflect contemporary conditions.</li> <li>2. Line of vegetation and temporary placement areas, shown hereon, are conceptual, contemporary conditions prevail in field placement of seaweed.</li> <li>3. The north toe of dune, as shown hereon, is approximate.</li> </ol> <p style="text-align: right;">0      100      200                  Feet</p>	<div style="text-align: center;">  <p><b>Aerial Site Plan</b></p> <p><b>After the Fact Permit SWG-2014-00448</b>                  Galveston Island Park Board of Trustees                  Galveston, TX                  Page 80 of 85</p> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Prepared By: Atkins/VORO5913</td> <td style="width: 50%;">Scale: 1" = 200'</td> </tr> <tr> <td>Job No.: 10004341Z</td> <td>Date: 1/7/2015 Revision: 7/9/2015</td> </tr> </table>	Prepared By: Atkins/VORO5913	Scale: 1" = 200'	Job No.: 10004341Z	Date: 1/7/2015 Revision: 7/9/2015
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**R.A. Apffel (East Beach) Park Corps of Engineers Seaweed Placement Areas #SWG-2014-00448**  
**Page 81 of 85 of Permitted Plan Maps (pg. 87 of PDF) Attachment Page 2 of 3 (Central R.A. Apffel Park)**



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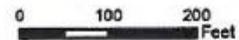
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Datum: NAD 83  
 Projection: State Plane  
 Zone: Texas South Central  
 Units: Feet



- Typical Jurisdictional Limit (3' Contour)
- Predetermined Temporary Placement Area (seaweed)
- Approximate Line of Vegetation
- High Tide Line
- Low Tide Line
- Excluded from Permit Project Area
- Proposed Project Area

Notes:  
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 3. The north toe of dune, as shown hereon, is approximate.



# ATKINS

**Aerial Site Plan**

**After the Fact Permit SWG-2014-00448  
 Galveston Island Park Board of Trustees  
 Galveston, TX  
 Page 82 of 85**

Prepared By: Atkins/VORO5913

Scale: 1" = 200'

Job No.: 100043412

Date: 1/7/2015 Revision: 7/6/2015